

Appl. No. 09/893,604
Amdt. Dated November 14, 2003
Reply to Office Action dated July 15, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of assessing the infectivity status of a host infected with HIV, comprising:
measuring independently of each other the number of cells in a sample which are expressing cell-surface gp120 and the number of lymphocytes in said sample which are CD4 positive, whereby the infectivity status of the host is assessed.
2. (original) A method of claim 1, wherein the infectivity status is represented by the number of cells expressing cell-surface gp120 per unit volume divided by the number of cells which are CD4 positive per unit volume.
3. (original) A method of claim 1, wherein the measuring is accomplished by flow cytometry.
4. (currently amended) A method of ~~claim 1~~ assessing the infectivity status of a host infected with HIV, comprising:
measuring the number of cells in a sample which are expressing cell-surface gp120 and the number of lymphocytes in said sample which are CD4 positive, whereby the infectivity status of the host is assessed, wherein the measuring is accomplished by a fluorescence resonance energy transfer assay.
5. (original) A method of claim 1, wherein the cells are peripheral blood mononuclear cells.
6. (original) A method of claim 1, further comprising:
combining an effective amount of an anti-gp120 antibody attached to a first detectable label and an effective amount of an anti-CD4 antibody attached to a second detectable label under conditions effective for said antibodies to bind gp120 and CD4 respectively.
7. (original) A method of claim 6, wherein said measuring is accomplished by flow cytometry.
8. (currently amended) A method of claim 1, further comprising:
combining an effective amount of an anti-gp120 antibody attached to a detectable label, an effective amount of an antibody specific for ~~specific for~~ said detectable label, and an aqueous sample containing viral infected ~~viral-infected~~ cells displaying said

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gp120 to form a mixture, wherein said antibody specific for ~~specific for~~ said detectable label is attached to a magnetic particle;

incubating said mixture under conditions effective for binding of said anti-gp120 antibody to gp120 on said cells, and, for binding of said antibody specific for ~~specific for~~ said detectable label to said detectable label attached to said anti-gp120 antibody, to form a complex, wherein said anti-gp120 antibody is bound to said gp120 displayed on a viral infected ~~viral-infected~~ cell;

separating said complex by applying a magnetic field to said mixture, whereby said complex is retained by said magnetic field, and

determining the presence of magnetically separated ~~magnetically-separated~~ cells by detecting said detectable label, whereby said magnetically separated cells are lymphocytes expressing cell-surface gp120.

9. (original) A method of claim 1, wherein the CD4 count of said host is less than 200/mm³ of whole blood.

10. (original) A method of claim 1, wherein the host has been treated with HAART.

11. (original) A method of determining the infectivity status of a host infected with HIV virus who has tested negative in a virus co-culture assay, comprising:

measuring the fraction of lymphocytes expressing cell-surface gp120 and the fraction of lymphocytes which are CD4 positive, whereby the infectivity status of the host is assessed.

12. (original) A method of claim 11, wherein the measuring is accomplished by flow cytometry.

13. (original) A method of claim 11, wherein the measuring is accomplished by a fluorescence resonance energy transfer assay.

14. (original) A method of claim 11, wherein the cells are peripheral blood mononuclear cells.

15. (original) A method of claim 11, further comprising:

combining an effective amount of an anti-gp120 antibody attached to a first detectable label and an effective amount of an anti-CD4 antibody attached to a second detectable label under conditions effective for said antibodies to bind gp120 and CD4 respectively.

16. (original) A method of claim 15, wherein said measuring is accomplished by flow cytometry.